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#### INTERNATIONAL SEARCH REPORT

Technology Center 2100

(PCT Article 18 and Rules 43 and 44) see Notification of Transmittal of International Search Report Applicant's or agent's file reference FOR FURTHER (Form PCT/ISA/220) as well as, where applicable, item 5 below. **ACTION** 00 - 320(Earliest) Priority Date (day/month/year) International filing date (day/month/year) International application No. 13/07/2000 31/05/2001 PCT/US 01/17426 Applicant CATERPILLAR INC This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau. This International Search Report consists of a total of \_\_\_\_ It is also accompanied by a copy of each prior art document cited in this report. | X | Basis of the report With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readble form. the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished Certain claims were found unsearchable (See Box I). 2. 3. Unity of invention is lacking (see Box II). With regard to the title, the text is approved as submitted by the applicant. the text has been established by this Authority to read as follows: 5. With regard to the abstract, IX the text is approved as submitted by the applicant. the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority. 6. The figure of the **drawings** to be published with the abstract is Figure No. None of the figures. as suggested by the applicant. because the applicant failed to suggest a figure. because this figure better characterizes the invention.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F02D41/38 F02D41/40

1/40 F02D41/10

F02D41/12

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{F02D} \end{array}$ 

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
P,X	EP 1 077 321 A (MAZDA MOTOR) 21 February 2001 (2001-02-21)	1-4,7, 9-11,14, 16,17		
	abstract			
	column 1, line 33 - line 56	ļ		
	column 18, line 7 - line 11			
	column 21, line 3 - line 21 figure 13			
X	PATENT ABSTRACTS OF JAPAN vol. 011, no. 247 (M-615), 12 August 1987 (1987-08-12)	1,3,10		
	& JP 62 055458 A (TOYOTA MOTOR CORP), 11 March 1987 (1987-03-11) abstract			
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X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul>	<ul> <li>'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>'&amp;' document member of the same patent family</li> </ul>
Date of the actual completion of the international search  6 December 2001	Date of mailing of the international search report  13/12/2001
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Röttger, K

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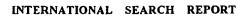
		FC1/US 01/1/420
C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 775 316 A (PEUGEOT) 27 August 1999 (1999-08-27) page 2, line 37 -page 3, line 29 abstract	1
А	US 5 947 380 A (STREICHER JAMES J ET AL) 7 September 1999 (1999-09-07) cited in the application the whole document	1,10
A	US 5 407 131 A (MALEY DALE C ET AL) 18 April 1995 (1995-04-18) cited in the application the whole document	1,10

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Information on patent family members

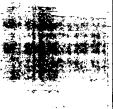
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EP 1077321	Α	21-02-2001	JP EP	2001055951 A 1077321 A2	27-02-2001 21-02-2001
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		PC1/US00/1/4	26
IPC(7) US CL	SSIFICATION OF SUBJECT MATTER :G06F 17/60 :705/10, 14 o International Patent Classification (IPC) or to both national classification a	nd IPC	
B. FIEL	DS SEARCHED		
ĺ	ocumentation searched (classification system followed by classification symbol 705/10, 14	ols)	
Documental	ion searched other than minimum documentation to the extent that such docume	nts are included	in the fields searched
;	lata base consulted during the international search (name of data base and, w	here practicable	e, search terms used)
C. DOC	UMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevan	nt passages	Relevant to claim No.
X	US 5,724,521 A (DEDRICK) 03 March 1998, Abstract.		1-6
х	WO 98/57276 A1 (NAZEM et al) 17 December 1998, A	bstract.	1-6
X,P	US 5,983,227 A (NAZEM et al) 09 November 1999, Al	ostract.	1-6
A,P	US 6,014,638 A (BURGE et al) 11 January 2000, Abstra	act.	1-6
A,P	US 5,978,766 A (LUCIW) 02 November 1999, Col. 2, li	ines 20-63.	1-6
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X Furth	er documents are listed in the continuation of Box C. See patent for	amily annex.	i jili girani Dami tak



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	Special categories of cited documents:	"T"	later document published after the international filing date or priority	
A*	document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
·	earlier document published on or after the international filing date	'X'	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step	
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P"	document published prior to the international filing date but later than the priority date claimed	*&*	document member of the same patent family	
ate of	the actual completion of the international search	Date o	f mailing of the international search report	
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Comm Box P	and mailing address of the ISA/US aissioner of Patents and Trademarks CT ngton, D.C. 20231	Author SU	sanna meistean A. Matthews	
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#### INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/17426

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C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where appropriate, of the relev	ant passages	Relevant to claim No.	
Т	Excerpts from the Internet <url: http:="" myhome.prodigy.net="">. l l October 2000, all pages.</url:>		1-6	
Т	Excerpt from the Internet <url: 2000,="" all="" home.netscape.com="" http:="" october="" pages.<="" td=""><td>1-6</td></url:>	1-6		
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